

A GAT CTG GCC AGC GCC GTG GGC ATC CAG TCC GGC AGC ATC TTT CAT CAC TTC AAG AGC AAG  
 D D L A S A V G I Q S G S I F H H F K S K  
 GAT GAG ATA TTG CGT GCC GTG ATG GAG GAA ACC ATC CAT TAC AAC ACC GCG ATG ATG CGC  
 D D E I L R A V M E E T I H Y N T A M R  
 GCT TCA CTG GAG GAG GCG AGC ACC GTG CGC GAA CGC GTG CTG GCG CTG ATC CGC TGC GAG  
 D A S L E E A S T V R E R V L A L I R C E  
 TTG CAG TCG ATC ATG GGC GGC AGT GGC GAG GCC ATG GCG GTG CTG GTC TAC GAA TGG CGC  
 D L Q S I M G G S G E A M A V L V Y E W R  
 TCG CTG TCG GCC GAA GGC CAG GCG CAC GTG CTG GCC CTG CGT GAC GTG TAT GAG CAG ATC T  
 D S L S A E G Q A H V L A L R D V Y E Q I

FIG. 1A

EXHIBIT B

AGATCTTGAGCGTCATGAGTGCCTGGGTACGCTTTTCATCGCGTCCGGCGATCGAGTGGGTGT  
 D D L E R H E C L G Y A F S S R P A D R E W V  
 R T R R I S L P H  
 TTTTCAGGGCAGCGTTTCCTACAAGTAGAGTGGCCAGCCGTTTGCTCATCAATGAAGCCGGCA  
 D F F Q G T V S Y K V R V A S R L L I N E S R A  
 D K K L A R N G V L Y S H G A T Q E D I F A P C  
 TTGATGTCGGCGCATTGATGGTTTGGCAATAGTCTCGGCCCGCAAGACTTCTGCGAAGCGCGTT  
 D L M S A A L D G F G I V L G P Q D F L R T A L  
 D Q H R R C Q I T K A Y H E A R L V E Q S R R Q  
 GCGAGTGGCGAGTTGGTGGGTGTGGCGGAGTTGAGGCTCCGAGTGGTGGATGCAATTGGTCT  
 D A S G E L V R V L P E F E A P S R S M H L V  
 D R T A L Q H P H Q R L K L S R T P R H M Q D  
 ACACCGCAACCGCCAGCGTACCGCAAGTTGCGCTGCTTTGTCGAGACTGTGCTGGACGTTTGGT  
 D Y T A N R Q R T A K L R C F V E T V L G R F G  
 D V G C V A L T G G L Q A A K D L S H Q S T K T  
 CCGTATGAAGAGCACCACCGTGGCGGTGCGCCGGANGCACCTAAGATCT  
 D P V  
 D R Y S P A G G H R D G P - V

FIG. 1B



US006551795B1

(12) **United States Patent**  
**Rubenfield et al.**

(10) **Patent No.:** US 6,551,795 B1  
**Date of Patent:** Apr. 22, 2003

(54) **NUCLEIC ACID AND AMINO ACID SEQUENCES RELATING TO *PSEUDOMONAS AERUGINOSA* FOR DIAGNOSTICS AND THERAPEUTICS**

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(73) **Assignee:** Genome Therapeutics Corporation, Waltham, MA (US)

(\*) **Notice:** Subject to any disclaimer, the term of this patent is extended or adjusted under 35 U.S.C. 154(b) by 0 days.

(21) **Appl. No.:** 09/252,991

(22) **Filed:** Feb. 18, 1999

#### **Related U.S. Application Data**

(60) Provisional application No. 60/074,788, filed on Feb. 18, 1998, and provisional application No. 60/094,190, filed on Jul. 27, 1998.

(51) **Int. Cl.<sup>7</sup>** ..... C12P 21/06; C12N 15/00; C07H 21/04

(52) **U.S. Cl.** ..... 435/69.1; 536/23.1; 536/23.7; 435/6; 435/320.1; 435/253.3; 435/325

(58) **Field of Search** ..... 536/23.1, 23.7; 435/6, 320.1, 69.1, 253.3, 325; 424/184.1; 514/44

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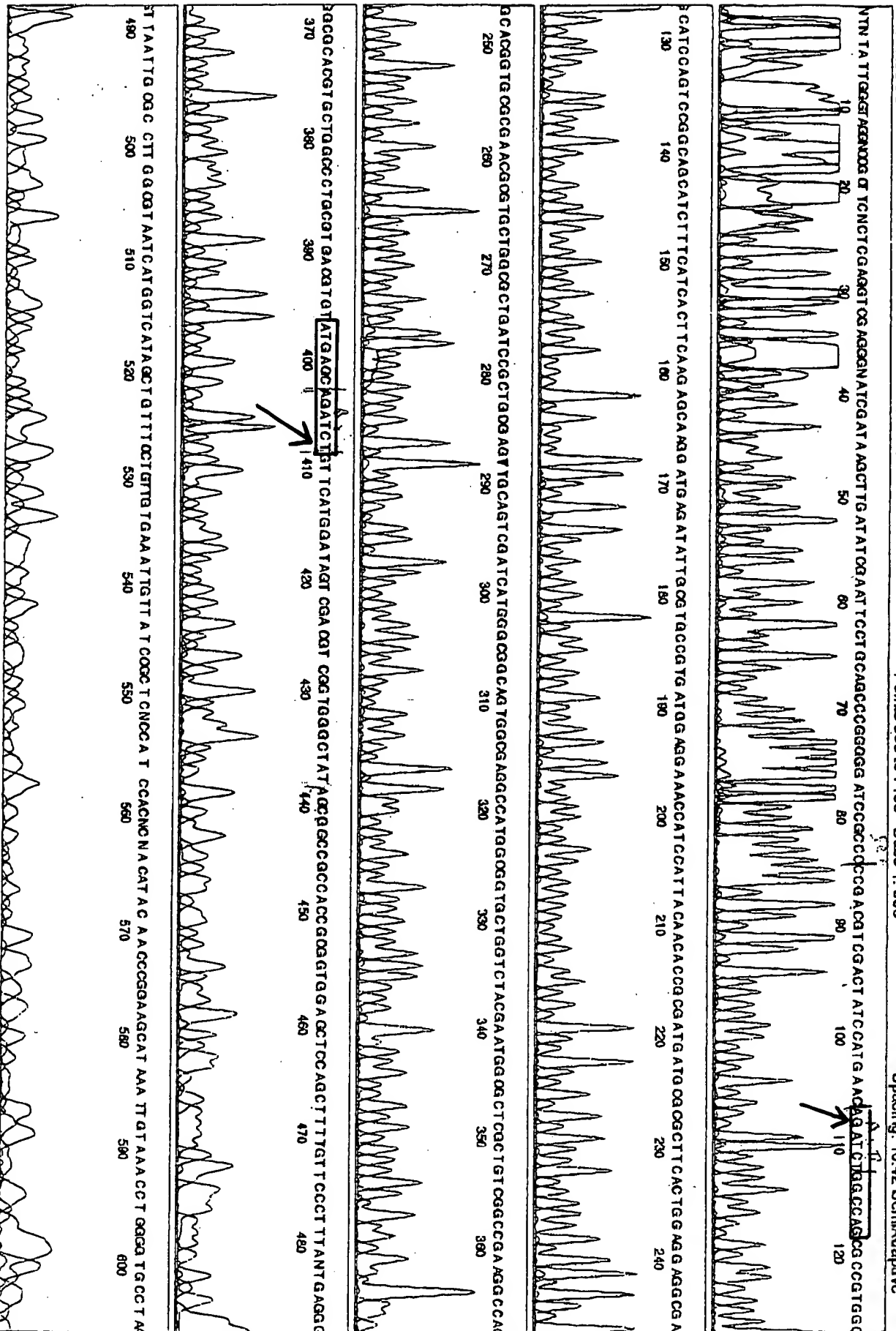
*Primary Examiner*—Marianne P. Allen

(74) *Attorney, Agent, or Firm*—Burns, Doane, Swecker & Mathis, L.L.P.

(57) **ABSTRACT**

The invention provides isolated polypeptide and nucleic acid sequences derived from *Pseudomonas aeruginosa* that are useful in diagnosis and therapy of pathological conditions; antibodies against the polypeptides; and methods for the production of the polypeptides. The invention also provides methods for the detection, prevention and treatment of pathological conditions resulting from bacterial infection.

**26 Claims, No Drawings**





## lalign output for SEQ ID NO:1 vs. electropherograph

[ISREC-Server] Date: Wed Sep 17 17:42:51 MET 2003

resetting matrix to DNA ./wwtmp/lalign/.305.1.seq : 301 nt

ALIGN calculates a global alignment of two sequences

version 2.0uPlease cite: Myers and Miller, CABIOS (1989) 4:11-17

SEQ ID NO:1 301 nt vs.

electropherograph 301 nt

scoring matrix: DNA, gap penalties: -14/-4

100.0% identity; Global alignment score: 1505

```

      10      20      30      40      50      60
./wwwt GATCTGGCCAGCGCCGTGGGCATCCAGTCCGGCAGCATCTTTCATCACTTCAAGAGCAAG
      .....
electr GATCTGGCCAGCGCCGTGGGCATCCAGTCCGGCAGCATCTTTCATCACTTCAAGAGCAAG
      10      20      30      40      50      60

      70      80      90     100     110     120
./wwwt GATGAGATATTGCGTGCCGTGATGGAGGAAACCATCCATTACAACACCGCGATGATGCGC
      .....
electr GATGAGATATTGCGTGCCGTGATGGAGGAAACCATCCATTACAACACCGCGATGATGCGC
      70      80      90     100     110     120

      130     140     150     160     170     180
./wwwt GCTTCACTGGAGGAGGCGAGCACGGTGCGCGAACGCGTGCTGGCGCTGATCCGCTGCGAG
      .....
electr GCTTCACTGGAGGAGGCGAGCACGGTGCGCGAACGCGTGCTGGCGCTGATCCGCTGCGAG
      130     140     150     160     170     180

      190     200     210     220     230     240
./wwwt TTGCAGTCGATCATGGGCGGCAGTGGCGAGGCCATGGCGGTGCTGGTCTACGAATGGCGC
      .....
electr TTGCAGTCGATCATGGGCGGCAGTGGCGAGGCCATGGCGGTGCTGGTCTACGAATGGCGC
      190     200     210     220     230     240

      250     260     270     280     290     300
./wwwt TCGCTGTCGGCCGAAGGCCAGGCGCACGTGCTGGCCCTGCGTGACGTGTATGAGCAGATC
      .....
electr TCGCTGTCGGCCGAAGGCCAGGCGCACGTGCTGGCCCTGCGTGACGTGTATGAGCAGATC
      250     260     270     280     290     300

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./wwwt T
:
electr T

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EXHIBIT D

### DNA Strider 1.0 ###

3:35:45 PM

Untitled Sequence # 1 [1 to 302] -&gt; 6-phase ORF Map &lt;1&gt;

DNA sequence 302 b.p. AGATCTGGCCAG ... ATGAGCAGATCT linear

